

### **REMARKS**

Claims 146-205 are pending in the above-identified application, and were rejected. With this Amendment, claim 171 was amended and claims 172 and 174 were cancelled. Accordingly, claims 171, 173, 175, and 176 are at issue.

#### **I. 35 U.S.C. § 102 Anticipation Rejection of Claims**

Claims 171-173 were rejected under 35 U.S.C. § 102(b) as being anticipated by Schetzina (U.S. Patent No. 5,670,798). Applicants respectfully traverse this rejection.

As amended, the cap layer in claim 171 has a band gap larger than that of the p-type clad layer. In addition, the thickness of the cap layer is equal to or more than 2 nm and equal to or less than 20 nm. No new matter has been added with the amendment to claim 171. (See claims 172 and 174, now cancelled, and page 31, lines 30-32.)

The Examiner identified the cladding layer 114a in Schetzina as a cap layer. Because the thickness of a cladding layer is much larger than the claimed 2 nm to 20 nm, Applicants respectfully submit that Schetzina neither discloses nor suggests a cap layer having a thickness equal to or more than 2 nm and equal to or less than 20 nm, as required by claim 171. Moreover, Schetzina does not disclose or suggest that the cap layer has a band gap larger than that of the p-type clad layer. Accordingly, Applicants respectfully submit that claim 171, and claim 173 that depends from claim 171, is allowable over Schetzina. With this amendment, claim 172 has been cancelled. Thus, Applicants respectfully request withdrawal of this rejection.

#### **II. 35 U.S.C. § 103 Obviousness Rejection of Claims**

Claims 174-176 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Schetzina. Applicants respectfully traverse this rejection.


As discussed above, Schetzina does not disclose or suggest a cap layer having a thickness equal to or more than 2 nm and equal to or less than 20 nm, as required by claim 171. Moreover, Schetzina does not disclose nor suggest that the cap layer has a band gap larger than that of the p-type clad layer. Thus, it would not have been obvious to a person of ordinary skill in the art at the time the invention was made to modify claim 171 to derive claims 175 or 176. With this Amendment, claim 174 has been cancelled. Accordingly, Applicants respectfully request withdrawal of this rejection.

### **III. Conclusion**

In view of the above amendments and remarks, Applicants submit that all claims are clearly allowable over the cited prior art, and respectfully request early and favorable notification to that effect.

Respectfully submitted,

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